24. The method of claim 22 wherein the DNA is introduced by injection into or near the peripheral nervous system of the animal.

REMARKS

Claims 20, 22-27, 29-36, 50-51, and 53-61 are pending. By this Amendment, claims 62-85 are canceled, and new claims 1-24 are added.

Please cancel the currently pending claims and substitute the claims provided herein, which are identical to claims identified by the numbers 62-85 in the preliminary amendment dated January 25, 2002. The substituted claims are renumbered in accordance with ordinary PTO procedure and are submitted in order to expedite prosecution of the present Application.

A substitute specification including corrections of typographical errors and the substituted claims is enclosed. No new matter is added.

With reference to C.F.R. § 1.821(e), a sequence listing is included as a hard copy (three [3] pages) in a separate letter under the same cover. Please use the computer-readable form (CRF) of the sequence listing filed on July 10, 1999 in the parent patent application Serial No. 09/408,508, which is now issued as U.S. Patent No. 6,372,721. The CRF of the present Application is identical to the CRF of the parent application Serial No. 09/408,508, which is now issued as U.S. Patent No. 6,372,721. The paper copy of the sequence listing in the present patent Application is identical to the CRF filed for the parent application Serial No. 09/408,508, which is now issued as U.S. Patent No. 6,372,721. No new matter is added.

The Commissioner is hereby authorized to grant any extensions of time and to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required during the entire pendency of this application to Deposit Account No. 16-0631.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.

CERTIFICATE OF EXPRESS MAIL

"Express Mail" mailing label number EV011654216US. Date of Deposit: April 30, 2002. I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Jeanne Truman
Name of Person Making Deposit

Jeanne Truman
Signature

ATTACHMENT
REDLINED AMENDMENT

Please cancel claims 62-85 without prejudice or disclaimer.

Please add new claims 1-24 as follows:

--1. A method for inducing nucleic acid synthesis in a glial cell comprising:

obtaining at least one vector comprising nucleic acid encoding a desired protein and an E2F regulator or an E1A regulator, or both an E2F regulator and an E1A regulator.

2. A method as in claim 1, wherein the vector(s) are associated with immunoliposomes.

3. A method as in claim 1 wherein the vector(s) comprise pRcCMV.

4. A method as in claim 3, wherein the vector(s) comprise the E2F regulator.

5. A method as in claim 3, wherein the vector(s) comprise the E2F2 regulator.

6. A method as in claim 3, wherein the vector(s) comprise the E1A regulator.

7. A method for integrating DNA encoding a desired protein in a glial cell comprising:

obtaining a vector comprising nucleic acid encoding an E2F regulator , an E1A regulator, or both an E2F regulator and an E1A regulator, wherein the vector can be used to express the DNA encoding a desired protein in a glial cell;

obtaining DNA encoding a desired protein; and

cotransfecting a glial cell with the vector and the DNA encoding the desired protein such that the DNA encoding the desired protein is integrated in the glial cell and the desired protein is produced.

8. A method as in claim 7, wherein the vector is included in immunoliposomes.

9. A method as in claim 7, wherein the desired protein is a neurotrophic factor.

10. A method as in claim 7, wherein the desired protein is retinoblastoma.

11. A method as in claim 7, wherein the vector comprises nucleic acid encoding both an E2F regulator and an E1A regulator.

12. A method as in claim 7, wherein the vector comprises nucleic acid encoding E2F regulator.

13. A method as in claim 7, wherein the vector comprises nucleic acid encoding E2F1 regulator.

14. A method as in claim 7, wherein the vector comprises nucleic acid encoding E1A regulator.

15. A method as in claim 7, wherein the desired protein is retinoblastoma.

16. A method as in claim 7, wherein the glial cell is a glioma.

17. An improved method of inducing a glial cell to express DNA encoding a desired protein of the type wherein the DNA encoding the desired protein is introduced into the glial cell, the improvement comprising:

cotransfecting the DNA encoding the desired protein with nucleic acids encoding at least one of the members of the group consisting of E2F and E1A.

18. The method of claim 17 wherein the E2F is chosen from the group consisting of E2F1, E2F2, and E2F3.

19. A method for integrating DNA encoding a desired protein into a glial cell, the method comprising co-transfecting a glial cell with DNA encoding a desired protein and DNA encoding either (a) an E2F regulator, (b) an E1A regulator, or (c) both an E2F regulator and an E1A regulator wherein the co-transfection step is performed in vitro.

20. The method of claim 19 comprising a step of transplanting the co-transfected glial cell(s) into an animal, wherein the animal is either human or non-human.

21. The method of claim 19 wherein the glial cell is a glioma cell.

22. A method for integrating DNA encoding a desired protein into a glial cell, the method comprising co-transfecting a glial cell with DNA encoding a desired protein and DNA encoding either (a) an E2F regulator, (b) an E1A regulator, or (c) both an E2F regulator and an E1A regulator wherein the co-transfection step is performed in vivo in an animal, the animal being either human or non-human.

23. The method of claim 22 wherein the DNA is introduced by injection into the brain or central nervous system of the animal.

24. The method of claim 22 wherein the DNA is introduced by injection into or near the peripheral nervous system of the animal.--